ABSTRACT

A PDP does not suffer from dielectric breakdown even though a dielectric layer is thin, with the problems of conventional PDPs, such as cracks appearing in the glass substrates during the production of the PDP being avoided. To do so, the surface of silver electrodes of the PDP is coated with a 0.1-10μm layer of a metallic oxide, on whose surface OH groups exist, such as ZnO, ZrO_2, MgO, TiO_2, Al_2O_3, and Cr_2O_3. The metallic oxide layer is then coated with the dielectric layer. It is preferable to form the metallic oxide layer with the CVD method. The surface of a metallic electrode can be coated with a metallic oxide, which is then coated with a dielectric layer. The dielectric layer can be made of a metallic oxide with a vacuum process method or the plasma thermal spraying method. The dielectric layer formed on electrodes with the CVD method is remarkably thin and flawless. When the dielectric layer is formed with the vacuum process method or the plasma spraying method, warping and cracks conventionally caused by baking the dielectric layer are prevented. Here, borosilicate glass including 6.5 % or less by weight of alkali can be used as the glass substrate.